Remarks/Arguments

Applicants have received and carefully reviewed the Office Action mailed August 4, 2005. Claims 1-13 and 35-66 are currently pending. Reconsideration are reexamination are respectfully requested.

Restriction

Claims 1-13, 48, and 50-66 are withdrawn from consideration as being directed to a non-elected invention. The Examiner asserts that the above claims are drawn to a combination that does not require the filter assembly to have the capability of eliminating micron sized particles, as was required by the subcombination as previously examined in the previous Office Action. Applicants do not understand this distinction because all of the independent claims as originally presented recited the capability of eliminating micron sized particles, and this language was removed from the independent claims in the last amendment. Because this element is no longer present in claim 35, which the Examiner has examined, Applicants respectfully submit the particle size capability does not distinguish withdrawn claims 1-13, 48, and 50-66 from examined claims 35-47 and 49. Applicants respectfully request the restriction be withdrawn and all pending claims 1-13 and 35-66 be examined.

Rejections under 35 U.S.C. § 103(a)

Claims 35-39, 41-47 and 49 are rejected as being unpatentable over Swan (US 4,668,854) in view of Monroe et al. (US 5,976,363). The Examiner asserts that Swan teaches the invention except for the filter means being capable of removing particles of 1.0 micrometer size or smaller, using a reverse osmosis filter, and controlling the inlet solenoid valve by the use of first and second level detection floats that detect both high and low levels of fluid within a container downstream of the filter means. The Examiner asserts that Monroe et al. teach a water filtering and heating system similar to that of Swan, utilizing multiple filters in series including a reverse osmosis filter upstream of a collection tank that may feed the filtered water to a water heating means. The Examiner then asserts that it would have been obvious to one of ordinary skill in the art to modify the humidifier system of Swan to include high purity filtration such as reverse

osmosis filters and to control the flow of water using multiple level sensing floats because doing so would reduce mineral buildup on the downstream heaters as well as optimizing the operating of the device by controlling water flow therethrough relative to the amount required to humidify the requisite area to the level necessary. Applicants respectfully traverse the rejection.

In response to Applicants' previous arguments that Swan does not appear to teach a level of fluid within the reservoir, the Examiner asserts that Swan clearly teaches the heated reservoir being in the form of a "boiler tank", and that one of ordinary skill in the art would recognize that a boiler tank is not a flash vaporization chamber as apparently alleged by applicant. The Examiner acknowledges that the boiler tank of Swan is small, but notes that the band heater of Swan is in two parts to maintain the boiler at a constant temperature, the bands operable to boil water that condenses at the top of the tank or collects in the bottom thereof.

Applicants submit that one of ordinary skill in the art, upon carefully reviewing the Swan reference, would understand that Swan does not appear to teach a boiler tank containing a level of fluid, and thus there would be no motivation for modifying the system of Swan to include water level sensors as taught by Monroe et al. While Swan refers to the reservoir as a "boiler tank", Swan does not appear to teach or suggest the tank containing fluid at a level where a sensor would be used to measure and/or maintain that level of fluid. Swan specifically teaches:

> One problem associated with boiling a quantity of water relates to the long lead time taken to increase the amount of water vapor generated and the long lead time required to stop the flow of water vapor when no longer needed.

See column 1, lines 31-35. Swan teaches his system as overcoming that problem:

> According to another aspect of the invention, each steam pulse is generated by <u>injecting a pulse of water through a small inlet tube into a steam generator</u> comprising a tank surrounded by a band heater. The unit is preheated to a high temperature such that <u>the water quickly turns to steam as it is injected</u> and the steam is then vented to the humidified chamber. Use of the small water inlet tube minimizes the amount of water remaining therein between water injection pulses, thereby <u>reducing the amount of water trickling into the boiler between injections</u>. Delays in starting and stopping steam pulses due to the time required to fill or drain the inlet tube are reduced and control over steam injection is improved.

(emphasis added). See column 1, lines 49-62. Swan teaches a first heating coil 23 operated to

maintain the tank 22 at a relatively high temperature of <u>200°C</u>, and "a second heating coil 25 operates only when water is being injected into the tank 22 and is sized to provide enough heat energy to convert the injected water to steam without changing the temperature in the tank." Swan teaches that "[a]s a water pulse enters tank 22 it rapidly turns to steam" which vents into chamber 12. See column 2, lines 55-67. Swan also teaches using a small diameter inlet tube 26 to minimize the amount of water trickling into the tank 22 between water injections. See column 3, lines 7-11.

Applicants submit that while the term "boiler tank" in some situations may refer to a tank that holds a level of fluid for which a fluid detection system would be desired, the specific teachings of Swan do not appear to support such an interpretation for the term in the context of Swan's system. MPEP 2111.01 part II states that

> It is the use of the words <u>in the context of the written description</u> and customarily by those skilled in the relevant art that accurately reflects both the "ordinary" and the "customary" meaning of the terms in the claims. *Ferguson Beauregard/Logic Controls v. Mega Systems*, 350 F.3d 1327, 1338, 69 USPQ2d 1001, 1009 (Fed. Cir. 2003).

(emphasis added). Swan teach the tank is kept at a relatively constant temperature of <u>200°C</u> using the first band heating coil, and the second band heating coil is activated when a water pulse is added to the tank in order to keep the tank temperature relatively constant. Swan teach the system as providing steam pulses when desired, and reducing delays in starting and stopping the steam pulses. Applicants submit that one of ordinary skill in the art would understand that if Swan maintained a level of fluid in the tank, the constant tank temperature of <u>200°C</u> would result in a constantly boiling fluid, creating a constant supply of steam to the chamber, which is the opposite of the precisely controlled humidity system taught and desired by Swan. Swan appears to teach a system in which the tank is kept at 200°C so that when "a water pulse enters tank 22 it rapidly turns to steam which then vents through an outlet pipe 28 and enters chamber 12 in the form of a steam pulse." See column 2, lines 65-67. Applicants submit that the Examiner's interpretation of "boiler tank" is contrary to the description and context of the entire Swan reference. Swan does not appear to teach a system having a reservoir and a fluid level detection mechanism to detect the fluid level in the reservoir, as is recited in independent claim 35.

Additionally, there is no motivation for one of ordinary skill in the art to modify the system of Swan to include a fluid level detection mechanism as taught by Monroe et al. because, as stated above, Swan does not appear to teach maintaining a level of fluid in the tank. Because Swan does not appear to teach maintaining a level of fluid in the tank 22, there is no motivation for one of ordinary skill in the art to add a fluid level detection system such as that taught by Monroe et al.

Swan thus actually teaches away from a combination with Monroe et al. because Swan specifically avoids having a water level continuously present in the tank but Monroe et al. teaches float switches that indicate when the water level in the storage tank is too high or too low. The modification of Swan's device to include a fluid level detection mechanism according to Monroe et al. would at best reinstate a problem Swan specifically overcomes, and would likely render the Swan device inoperable for it's intended purpose.

Further, Applicants submit that Swan and Monroe et al. are non-analogous art. There is no motivation for one of ordinary skill in the art to combine the teachings of Swan with the purified water system of Monroe et al. Monroe et al. teaches a purified water supply system for a kitchen, and does not appear to teach or suggest a heating element adjacent to the reservoir for heating the filtered fluid within the reservoir. Monroe et al. teaches the kitchen water station 1 as being separate from and spaced from a kitchen appliance 4 using purified water. See column 10, lines 13-23 and 50-55, and FIGS. 1a and 1b.

Applicants submit that one of ordinary skill in the art would have no motive or reason to combine the small chamber humidification device of Swan with the kitchen water purification device of Monroe et al. The references teach very different devices with different components, different configurations, and different functions. The only motivation for combining the teachings of Swan and Monroe et al. appears to come from Applicants' own specification.

Neither Swan nor Monroe et al. alone or in combination teach or suggest each and every element of independent claim 35. The references thus fail to reach or suggest the elements of the dependent claims. Withdrawal of the rejection is respectfully requested.

Claim 40 is rejected as being unpatentable over the reference combination as applied to claims 35-39, 41-47, and 49 above, and further in view of Guetersloh et al. (US 6,394,427). The

combination of Swan and Monroe et al. fails to teach or suggest each and every element of independent claim 35 for at least the reasons set forth above. Guetersloh et al. do not provide what Swan and Monroe et al. lack, thus the combination of Swan, Monroe et al. and Guetersloh et al. also fails to teach or suggest the elements of dependent claim 40. In particular, Swan does not appear to teach a reservoir with a fluid level to be maintained and thus there is no motivation for one of ordinary skill in the art to add a fluid level detection mechanism such as that taught by Monroe et al. Thus, there is also no motivation for one of ordinary skill in the art to use a particular float device, such as the magnet and reed switch taught by Guetersloh et al. Withdrawal of the rejection is respectfully requested.

Applicants submit that claims 1-13, 48, and 50-66 also recite elements not taught or suggested by the cited references, for at least the reasons set forth above. Reconsideration and reexamination of all pending claims 1-13 and 35-66 are respectfully requested. Allowance of all pending claims is respectfully requested. If a telephone interview is desired or would be of assistance, please contact the undersigned attorney at 612-359-9348.

Respectfully Submitted,

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